# OPHTHALMOLOGY.

UNDER THE CHARGE OF
GEORGE A. BERRY, M.B., F.R.C.S. Edin.,
OPHTHALMIC SURGEON, EDINBURGH ROYAL INFIRMARY;
AND
EDWARD JACKSON, A.M., M.D.,
PROFESSOR OF DISEASES OF THE EYE IN THE PHILADELPHIA POLYCLINIC; SURGEON TO WILLS EYE HOSPITAL, ETC.

## Abnormal Associated Movements of the Eyelids.

W. W. Sinclair (Ipswich, Eng.) reports new cases, and collects cases previously reported, making a total of forty (*Ophthalmic Review*, No. 168). These he has analyzed and classified in three series. The *first series* includes thirty-two cases in which certain movements of the lower jaw were associated with an upward movement of the upper eyelid. This series is subdivided into four groups. The first group is of cases of one-sided congenital ptosis, in which the drooping eyelid was raised both when the mouth was opened (by the digastric?) and also when the jaw was directed to the opposite side (by the external pterygoid). The second group is of those cases of one-sided congenital ptosis in which the eyelid was raised when the jaw was depressed, but not when it was moved laterally. In the third group are placed those cases in which the drooping eyelid was raised with lateral movement of the jaw, but not with simple opening of the mouth. Group four includes cases in which associated movements of the upper lid occurred, with movements of the jaw; but in which there is no ptosis. In some of the fourth group ptosis developed later. Up to the present no case has been examined post mortem, and in the present state of our knowledge, Sinclair thinks, some abnormal anatomical connection between the levator muscle and parts of the fifth-nerve nucleus is the simplest explanation of this association of movement.

In the *second series*, of four cases, contraction of the levator of the upper lid was associated with contraction of the internal rectus. Turning the eye in was associated with an elevation of the lid. This was bilateral in all but one of the cases. It might be explained by an unusually close connection between the two third-nerve nuclei.

The *third series* includes five cases collected from the experience of London ophthalmic surgeons, and differing from any cases previously published. They are cases of paralysis or paresis of one external rectus, in which movement inwards of the affected eye was associated with contraction of the orbicularis muscle and retraction of the globe. In one case the enophthalmos was permanent. For this series of cases Sinclair finds no satisfactory explanation, and he thinks they will probably not be correctly explained until the opportunity for a post-mortem examination occurs. In the third series it was the left eye which was affected in every case. In the first series the preponderance of cases in which the left eye was affected was as 2½ to 1.

The first case of these abnormal associated movements appears to have been recorded by Gunn in 1883; but Sinclair believes that such cases are comparatively common, and that many instances have been met with which were merely regarded as curiosities, and not put on record.

### PARESIS OF THE OCULAR BRANCH OF THE SYMPATHETIC.

PANAS (Paris) calls attention (*La Presse Médicale*, 1895, No. 64) to this condition, which is liable to be confounded with ptosis due to lack of power in the levator of the upper lid; whereas the weakness is really manifested in the action of the unstriated fibres of Muller and Sappey. The ptosis from paresis of the sympathetic is distinguished from ptosis due to other causes by the coexistence of a contraction of the pupil on the affected side. This contraction is due to weakness of the dilator of the pupil ("internal dilator") similar to the weakness of what Panas styles the "external dilator" or dilator of the palpebral opening. The pupil is free from adhesions and reacts to light and with convergence, but its contraction may not be entirely regular. In severe cases there will also be unilateral flushing of the face, especially when the patient is very warm or subjected to strong emotion.

The prognosis is rather grave, in that the vascular conditions tend to weaken; yet the ocular paresis may remain unchanged after many years. The treatment recommended by Panas consists of the application of electricity to the surface of the lid and over the course of the cervical sympathetic of the affected side, and a tonic regimen. One can try the hypodermic injection of strychnine in the temple. The weakness may be masked for a brief time by the stimulating effects to the fibres involved of local applications of cocaine.

### CONGENITAL NIGHT-BLINDNESS.

The atypical cases of *retinitis pigmentosa*, as those without the characteristic pigment-deposits, those following acquired syphilis, or those occurring in connection with choroiditis, are so numerous and so varied in their character that it has been easy to group with them conditions which will probably be proven essentially different. One of these conditions has recently been studied by C. W. Cutler, in the clinic of Prof. Fuchs (Vienna), who reports five cases occurring in two families, and gives (*Archives of Ophthalmology*, vol. xxiv., No. 3) a *résumé* of previously reported cases, including records of ten families and two isolated cases, making in all fifty-four cases. To these must be added two cases reported, with references to others, by W. T. Atwool (Torbay, Eng.), in *Royal Lond. Ophthal. Hosp. Rep.*, vol. xiv., part i.

The condition is characterized by the following features, which sharply differentiate it from retinitis pigmentosa: Night-blindness is congenital, and remains entirely unchanged throughout life. The ophthalmoscopic appearances are normal. Cutler notes that in one case the retinal arteries were distinctly narrow. Nettleship described white spots at the macula in some of his cases, and slight or moderate conus has been noted in several cases; but these changes are manifestly accidental as regards the condition in question.

The field of vision for white is normal, or at least not materially contracted. The fields for colors are not greatly contracted. That for red is nearly or quite normal. The fields for yellow and blue are almost identical, and may lie within the field for red. This reversal of fields may disappear under diminished illumination. Central color-perception is normal.

The condition is hereditary, more markedly so than retinitis pigmentosa. In two families it was traced through five generations. In two families it was confined to males, being transmitted through normal females to their sons, like congenital color-blindness; but in the other families both males and females were affected.

The impairment of vision by diminished illumination is very marked. Some of the cases could not venture out of the house alone after nightfall. The father of Atwool's cases, a naval officer, had accidentally walked off the bridge at night on more than one occasion. In Cutler's cases the light-sense tested by Foerster's photometer varied from 1/25 to 1/49, and was unchanged after one hour's adaptation. Cutler points out that the frequent coincidence of night-blindness and blue-blindness is suggestive; but that it would be rash to conclude from this that they are intimately related.

## HYDRAULIC CURETTING OF THE CORNEA.

Under this peculiar title SANTARNECCHI (Cairo) advocates (*Annales d'Oculistique*, vol. cxiv., No. 3) the forcible washing out of corneal ulcers and abscess-cavities. He holds that the complete incision proposed by Saemisch may be very useful in limited vascular ulcers, and may be employed with advantage when an abscess has opened into the anterior chamber; but it is contraindicated for large atonic ulcers, and should be discarded if the abscess opens externally or is not completely open. The actual cautery for the treatment of these conditions he thinks destined to be relegated to the domain of history.

The method put forward is, after instilling cocaine, to attack the surface of the ulcers, or walls of the ulcerated or carefully opened abscess, with a jet of water, applying it over the whole surface, and progressively increasing its violence until the last portion of adherent ulcerated tissue is removed. After this the eye is covered with a protective bandage. To furnish the jet he employs an Anel syringe, the only fault of this instrument being that it does not contain a sufficient quantity of fluid for complete cleansing.

## DESCENDING OPTIC NEURITIS CONSEQUENT UPON NASAL TREATMENT.

Temporary amblyopia and narrowing of the field of vision, apparently reflex or combined with hyperæmia of the eyeball, following the application of the galvano-cautery to the nasal mucous membrane, have been reported by a number of observers. A. ALT (St. Louis) reports (*Amer. Journ. of Ophthalmol.*, vol. xii., No. 9) a case of a somewhat different and more serious nature.

A man, aged thirty-eight years, had been treated for nasal catarrh and narrowing of the eft nasal passage by means of different applications and the galvano-cautery. He noticed the left eye did not see so well as usual, and mentioned it to his physician. Treatment was persisted in, and two days later he awoke to find the eye blind. When seen that day by Alt there was doubtful perception of light, the pupil was dilated and scarcely reacting. The margins of the optic papilla were almost invisible, the retinal veins were hyperæmic, the arteries thin. Tension was normal.

The nasal treatment was stopped. On the third day the patient counted fingers at one foot, and on the sixth day at five feet, with considerable increase of the field. A few days later injections of strychnine were commenced, and by the eighteenth day he had regained vision = 20/xxx+, the field being still somewhat narrowed except upward and outward. The arteries were still thin, and papilla almost white.

Afterward Dr. Alt learned that the patient had had syphilis, and he thinks that to this was in some measure due the severity of the attack; but that it could only be accused of being an indirect cause of the trouble by rendering the patient more vulnerable, since only the eye on the affected side was involved, and it improved promptly on mere cessation of the nasal treatment.

---

## Prevalence of Trachoma.

From an extended study of the statistics of trachoma and correspondence with ophthalmic surgeons in all parts of the world, **Van Millingen** (Constantinople) has reached the following conclusions (*Annal. d'Oculistique*, vol. cxiv., No. 3):

1. Trachoma is an infectious and contagious disease, which predominates in uncivilized countries and tends to disappear with the progress of civilization and hygiene. Hygiene and cleanliness are the best preservatives against trachoma.
2. Trachoma is not influenced by altitude; it may spread wherever the people are uncleanly and live in poverty quite as easily at altitudes of 1000 to 5000 metres as on plains.
3. All races are equally susceptible to the virus of trachoma. An immunity for certain races does not exist.

---

## Treatment of Ocular Syphilis by Mercury, Potassium Iodide, and Pilocarpin.

G. H. **Burnham** (Toronto) reports (*Archives of Ophthalmol.*, vol. xxiv., No. 3) greatly increased efficiency in the treatment of syphilis of the eye by the addition of pilocarpine to the ordinary mixed treatment. The pilocarpine was given hypodermically in doses of one-eighth to one-fourth grain daily, unless its administration gave rise to nausea, headaches, or oppression over the heart, when it was stopped for a day or two. This was continued two or three weeks, then intermitted, the mercury and potassium iodide being continued through the interval.

---

## Relaxation of the Skin of the Lids.

Under the name of *Blepharochalasis*, **Fuchs** (Vienna) gives an account (*Wiener klin. Wochensch.*, ix. Jahr., No. 7) of a condition which he finds nowhere accurately described in ophthalmic literature. The affection is seen in young and middle-aged persons, although the condition of the skin comes to resemble that of senile relaxation and atrophy. The change is confined exclusively to the upper lid, and mainly to the part above the tarsal cartilage. There are repeated attacks of œdematous swelling of the part which at such times hangs down toward the lid-margin like a bag, pale, and as though filled with water. After these attacks the skin feels extremely thin and presents premature grayness, or there may be redness from numerous small distended veins.

The disease is essentially an atrophy of the skin with thinning and loss of elasticity, followed by stretching and atrophy of the subcutaneous tissue. It is comparable with the changes produced in the skin by distention from pregnancy or dropsy. The treatment must be by an operation removing a portion of the relaxed tissue. Fuchs has found that the injection of tincture of iodine or strong alcohol into the subcutaneous cellular tissue of the part, to produce inflammation and subsequent cicatricial contraction, has been followed by little benefit.

## OPERATIVE TREATMENT OF ENTROPION AND TRICHIASIS.

J. B. STORY (Dublin) holds that a good operation will not leave the result at the mercy of the subsequent stretching or further contraction of cicatricial bands; will entail no unnecessary removal of tissue; will not produce an ugly scar; and will not, if it happens to fail, render the patient's condition worse by making a second operation more difficult. He describes (*Ophthalmic Review*, vol. xiv., No. 170) the operation employed in nearly four hundred cases, with results " almost uniformly perfect."

An intermarginal incision is made along the whole border of the lid or beyond the part affected, all the cilia being included in the upper lip of the incision. This should be deep enough to allow the wound to gape easily about 3 mm. A strip of mucous membrane is then dissected from the lip, as long as the incision, and 2 or 3 mm. wide. From this strip all fat is removed. A suture with a large knot on it is drawn through one end of the strip from its external surface, and the needle passed into one end of the intermarginal cut and brought out through the skin of the lid at some distance—say 8 mm.—from the lid-border. The suture is then tied, care being taken to pull the strip well into the incision, and to leave an interval between where the suture comes out of the skin and the suture-knot to facilitate removal. The other end of the strip is similarly secured in the other end of the incision; and a third suture may be placed in the middle of the strip; although if the strip is stretched pretty tightly between the end-sutures, the third is not necessary.

For the same purpose F. C. HOTZ (Chicago) prefers to take (*Jour. Am. Med. Assoc.*, vol. xxv., No. 16) a narrow strip of skin from behind the ear. This is made by an incision as long as the required graft and 1 mm. deep, and a second incision chiefly parallel to it 1.5 or 2 mm. distant from it, but joining the first at the ends and so inclined as also to meet the first at the proper depth throughout its length. The firm wedge-shaped graft thus obtained is trimmed, if necessary, to fit the incision, and pressed firmly into it.

The surface of the graft should be even with, or a little below, the edges of the wound; should never protrude beyond them. No suture is required to hold this in place, and it only needs to be bandaged for twenty-four hours; after which it should be well lubricated with vaseline until in about two weeks it becomes smooth and scarcely distinguishable from the rest of the lid-border.

---

### MIGRATION OF SUBHYALOID HEMORRHAGE.

H. FRIEDENWALD (Baltimore) reports (in the *Trans. of the Section on Ophthalmology of the Amer. Med. Assoc.*, 1895) a case of manifest disease of the retinal vessels, with repeated hemorrhages, subhyaloid, and into the vitreous. A large subhyaloid hemorrhage occurred in the upper part of the fundus. The next day it seemed to have changed position and an accurate drawing was made of it. Two days later it had migrated to a lower point and was lying directly over the macular reflex, and its lower edge was slightly concave and corresponded with the convexity of the upper margin of this reflex. Four days after this a small part of the hemorrhage remained at the upper margin of the macular, but the greater part had passed to the temporal side of the macular and beneath it, while between the two parts stretched a hemorrhagic line passing to the outer side of the macular and concave toward it. After this the bulk of the hemorrhage sank a little lower, and two weeks later it was principally absorbed.

---

### SCOPOLAMIN HYDROCHLORATE AS A CYCLOPLEGIC.

T. E. MURRELL (St. Louis) has employed this drug for the purpose of paralyzing the accommodation for the measurement of ametropia, and is confident that so far it is the best cycloplegic that we have. He has employed it in fifty-seven cases (*Annals of Ophthalmology and Otology*, vol. iv., No. 4) in a solution of 1:1000, making two instillations at an interval of fifteen minutes, and has never had any evidence of a want of total suspension of the accommodation at the end of an hour from the first application. From such a use of the drug he has seen no systemic poisoning or local irritation. The accommodation is regained sufficiently to read in about seventy-two hours.

---

### FORMALIN IN OPHTHALMIC PRACTICE.

SWAN M. BURNETT (Washington) calls attention (*Ophthalmic Record*, vol. v., No. 9) to the therapeutic value of this drug in ophthalmic medicine and surgery. It is a germicide of great power, it has little if any toxic properties, and it has the power of diffusing itself rapidly through the tissues. The latter quality gives it a great advantage over mercuric chloride, which by its coagulative action greatly limits its sphere of efficiency.

Burnett has obtained excellent results from its use in infecting ulcers of the cornea and purulent conjunctivitis. Corneal ulcers may be touched with a solution of 1 to 200 or 1 to 500 every day. For general use as an antiseptic collyrium a strength of 1 to 1000 or 1 to 2000 may be employed, although the stronger of these sometimes causes a slight burning sensation. For the disinfection of instruments and keeping them aseptic it has the advantage of not dulling the edges of knives.

### DIFFUSE SARCOMA OF THE CHOROID.

**MITVALSKY** (Prague) calls attention to the comparatively rare cases in which sarcoma of the choroid, instead of giving rise to a circumscribed tumor, extends with moderate thickening throughout a considerable part of that membrane, and he reports two cases (*Archives of Ophthalmology*, vol. xxiv., No. 4). He states that sarcoma may involve the entire uveal tract and yet never fill the interior of the eye, but may give rise to episcleral nodules.

In one of his cases a sarcoma with a history of two years' growth, involving the outer posterior portion of the choroid, had attained a thickness of but 1 mm., and the transition to normal choroid was very gradual. In another case arising in the macular region the thickness of but 1.5 mm. had been attained in three years and a half; but several secondary nodules had formed in the anterior portion of the retina. This case had been seen early and the diagonsis made of central choroiditis.

### OYSTER-SHUCKER'S KERATITIS.

**R. L. RANDOLPH** (Baltimore) has made a clinical and experimental study of the so-called oyster-shucker's keratitis, and reports his results in the *Johns Hopkins Hospital Bulletin*, Nos. 56 and 57. The affection is due to an injury to the cornea from a particle of oyster-shell, and is characterized by the rapidity with which an area of infiltration appears at the site of the wound. It is met with chiefly in the vicinity of Baltimore. This Randolph thinks is because elsewhere they do not follow the practice of striking the shell with a hammer, a practice apparently responsible for the injury. The particle is usually too small and light to penetrate deeply, and can seldom be detected. When it is heavy enough to pass through the cornea the eye is usually lost.

Bacteriological examinations and cultures from sixty-five cases yielded no constant, or generally present, pathogenic micro-organisms. The juice of the oyster mixed with clippings of the shell and filtered injected into the cornea and conjunctiva of the rabbit gave negative results. There were no reasons for supposing the keratitis due to some property peculiar to the oyster-shell of the Chesapeake Bay. Particles of shell sterilized by heat and introduced into the rabbit's cornea invariably produced an ulcer, which did not result from the introduction of other sterilized substances. Experiments with pure carbonate of lime (which constitutes 90 per cent. of the oyster-shell) produced in each instance a keratitis, and Randolph inclines to ascribe to it at least a share in the causation of the affection.

The treatment giving the best results includes: A compress-bandage, a mild sublimate solution, 1 to 4000, used every four hours, and an occasional drop of a 1 per cent. solution of atropin. To this treatment the keratitis promptly responds, and the patient can resume work in a week or ten days. Some opacity of the cornea is permanent.

### STRYCHNINE FOR INSUFFICIENCY OF THE INTERNAL RECTI MUSCLES.

In the *Transactions of the American Ophthalmological Society*, vol. vii., part ii., **H. S. OPPENHEIMER** (New York) reports twenty-eight cases of exophorine, which he thinks prove that strychnine sulphate has a specific effect on the interni of the eye, toning them up especially, and far beyond the effect it has on the ocular muscles. The drug was given by the mouth three times daily, beginning with the dose of one-thirtieth of a grain, and increasing the dose gradually until in several cases one-eighth of a grain was taken.

# OTOLOGY.

UNDER THE CHARGE OF

CHARLES H. BURNETT, A.M., M.D.,

AURAL SURGEON, PRESBYTERIAN HOSPITAL, ETC., PHILADELPHIA.

### Foreign Body in the Ear.

**Böke** records a case of fatal meningitis, set up by unskilful efforts at removal of a foreign substance from the ear of a child, three and one-half years old.—*Archiv f. Ohrenh.*, Bd. 40, p. 56.

If the average medical man would only remember that a simple substance which a child can slip into the external ear could be syringed out by anybody, how much trouble would be saved! Gentle measures always succeed, and rough ones never, while the latter always do harm and often cause death.

### Objective Noise in the Ear.

**Tomka** reports the observations of an objective noise in the ear of a boy of six years, due, he thinks, to the contraction of the tensor veli muscle. —*Archiv f. Ohrenh.*, Bd. 40, p. 57.

### Primary Carcinoma of the External Auditory Canal.

**Krepuska** records a case of carcinoma of the external auditory canal, which seemed to have originated in chronic eczema. Carcinomatous degeneration occurred partly in the excretory ducts and partly in the acini of the wax-glands, and extended to the terminus of the middle-ear.—*Archiv f. Ohrenh.*, Bd. 40, p. 56.

### General Constitutional Treatment in Diseases of the Ear.

**Gellé** presented an exhaustive paper on this subject at the Fifth International Otological Congress, September, 1895.—*Journal of Laryngol., Rhinol., and Otol.*, November, 1895.

He said, among other things, that often the most important information the aurist can give is that the ear is quite normal in appearance, and that the physician must look elsewhere for the cause of constitutional disturbances, though in many cases he could trace them to disease of the organ of hearing.